Remarks

Claims 1-36 are pending.

Please note that on April 20, 2004, an Information Disclosure Statement was submitted with form PTO 1449 and citing 17 references. The Office Action of November 9, 2005, included a partially initialed copy of the 1449. Specifically, Patent Application Publications US2002/0019909, US2003/0172182, and US2003/0023893 were not initialed. Consequently, the applicant respectfully requests the Examiner to forward a copy of the submitted form PTO 1449 indicating that the references have been considered.

Claim Objections

Claim 15 is objected to under 37 CFR 1.75(c), as being improper dependent form for failing to limit the subject matter of a previous claim. The applicants respectfully disagree. While claim 14 does recite an *interface* "configured to communicate with a device policy module including . . . ," claim 14 does not in fact include the device policy module. By specifically adding the device policy module to the system of claim 14, claim 15 further limits the subject matter of the previous claim.

Rejection of Claims under 35 U.S.C. § 101

Claims 29-36 stand rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter because the claims are not limited to tangible embodiments. In particular, the Examiner states the applicants' claimed communications medium is not specified to preclude any intangible embodiments. The applicants respectfully traverse this rejection.

The applicants note that claims 29-36 are directed to functional descriptive material encoded on a *computer readable medium*, and that computer readable medium is at least one of an electronic storage medium, a magnetic storage medium, an optical storage medium, and a communications medium conveying signals encoding the instructions.

First, to the extent that the applicants have claimed a communications medium conveying signals encoding the instructions that is a *computer readable medium*, the

applicants have claimed a sufficiently tangible embodiment, i.e., a computer readable medium must be tangible for it to be readable by a physical device such as a computer.

Second, as noted in the Examination Guidelines for Computer-Related Inventions, "[w]hen functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases." MPEP §2106, page 2100-12. Furthermore, "[c]laims that recite nothing but the physical characteristics of a form of energy, such as a frequency, voltage, or the strength of a magnetic field, define energy or magnetism, per se, and as such are nonstatutory natural phenomena . . . . However, a signal claim directed to a practical application of electromagnetic energy is statutory regardless of its transitory nature." MPEP §2106, page 2100-14, citing *O'Reilly v. Morse*, 56 U.S. (15 How) 62, 114-119 (1853) and *In re Breslow*, 616 F.2d 516, 519-21, 205 USPQ 221, 225-26 (CCPA 1980), emphasis added. Claims 29-36 are clearly directed to more than simply the physical characteristics of a form of energy, as indicated by the description of the instructions that have been encoded on the computer readable communications medium. Furthermore, such instances of the claims where the computer readable medium is a communications medium conveying signals encoding instructions are practical application of, for example, electromagnetic energy due to the encoding of the instructions, which include functional descriptive material, on a carrier wave. Accordingly, claims 29-36 recite statutory subject matter.

Rejection of Claims under 35 U.S.C. § 103

Claims 1-36 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the alleged admitted prior art and Koclanes et al., U.S. Patent Publication No. 2004/0243699 (Koclanes). The applicants respectfully traverse these rejections.

Koclanes and the alleged admitted prior art neither teach nor suggest a method including:

> receiving a request to load a device policy module into a memory, wherein
> the device policy module is for use by a device driver, and wherein the
> device policy module includes at least one of a function, a procedure, and
> an object-oriented method operable to perform at least one of input/output

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(I/O) operation scheduling, path selection, and I/O operation error analysis;

loading the device policy module into the memory; and

informing the device driver of availability of the device policy module,

as required by independent claim 1, and generally required by independent claim 29.

As an initial matter, the applicants respectfully submit that their disclosure makes no admission as to a "storage device discovery module" or a "multipath driver in communication with the storage device discovery module" being prior art. Although the Examiner refers to the applicants' prior art **Figure 2**, neither that figure nor its accompanying description references a *storage device discovery module* or a multipath driver *in communication with the storage device discovery module.*

Regarding receiving a request to load a device policy module into memory, the Examiner refers to paragraph 0017 of Koclanes which states:

> In one aspect, policy based management of storage resources in a storage network is accommodated by associating service level objectives with storage resource requesters such as applications. A set of policy rules is established in connection with these service level objectives. An update of the configuration of the storage network, such as a provisioning of storage resources for the application, is performed according to a workflow that implements the policy rules, which allows the service level objectives of the application to be automatically satisfied by the new provisioning.

The applicants respectfully disagree.

The cited portion of Koclanes refers to a number of distinct entities: service level objectives, storage resource requesters, a set of policy rules established in connection with these service level objectives, and a workflow that implements the policy rules. While it is not completely clear which of the entities the Examiner believes teaches the claimed device policy module, the cited portion of the reference does not teach or suggest receiving a request to load any of them into a memory. Moreover, from the first sentence of paragraph 1, on page 4 of the Office Action of November 9, 2005, it seems that the Examiner may be referring to Koclanes' "set of policy rules established in connection with these service level objectives" as the claimed device policy manager. There is

clearly nothing in the cited portion of Koclanes suggesting a request to load the "set of policy rules established in connection with these service level objectives" into a memory.

Moreover, there is nothing in the cited portion of Koclanes teaching or suggesting that the "set of policy rules established in connection with these service level objectives," includes at least one of a function, a procedure, and an object-oriented method operable to perform at least one of input/output (I/O) operation scheduling, path selection, and I/O operation error analysis, as required of the applicants' claimed device policy module.

Regarding the claim limitation that the device policy module "is for use by a device driver," the Examiner refers to paragraph 0037 of Koclanes, which states:

> In one aspect, policy-based management of storage resources incorporates automatically meeting a set of service level objectives (SLOs) driven by policy rules. Optionally, these SLOs may correspond to a service level agreement (SLA). Some of the policy rules are technology driven, such as those that pertain to how a particular device is managed. Others may be more business oriented. For example, a business policy may mandate that a particular application is a mission critical application. Rules corresponding to that business policy could include a requirement for redundancy and synchronous recovery for any storage resources used by the mission critical application.

Nothing in the cited portion of Koclanes teaches or suggests the use of *anything* by a device driver, least of all Koclanes' "set of policy rules established in connection with these service level objectives," i.e., that which the Examiner apparently believes to teach the claimed device policy module.

Regarding the claimed "informing the device driver of availability of the device policy module," the Examiner presents no argument.
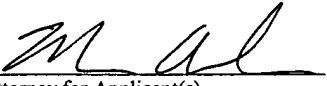
Additionally regarding independent claim 14, the Examiner provides no argument regarding the claimed limitation that the multipath driver include an "interface configured to communicate with a device policy module."

Finally, the applicants respectfully submit that the Examiner has failed to establish a *prima facie* case of obviousness. In addition to the claim elements not taught or suggested by the cited references as described above, the Examiner has not shown that there is some suggestion or motivation to combine Koclanes and the purportedly admitted

prior art, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. Neither reference suggests such a combination, and the Examiner merely refers to purported problems in storage management (e.g., paragraph 0006). The applicants respectfully submit that the Examiner has failed to explain what specific understanding or technological principle within the knowledge of one of ordinary skill in the art would have suggested the combination, as required by, for example, *In re Rouffet,* 47 USPQ2d 1453 (Fed. Cir. 1998).

Accordingly, the applicants respectfully submit that independent claims 1, 14, and 29 are allowable over Koclanes and the purportedly admitted prior art. Claims 2-13 depend from independent claim 1 and are allowable for at least this reason. Claims 15-28 depend from independent claim 17 and are allowable for at least this reason. Claims 30-36 depend from independent claim 29 and are allowable for at least this reason.

In view of the amendments and remarks set forth herein, the application is believed to be in condition for allowance and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the examiner is requested to telephone the undersigned.

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_____Feb 9_____, 2006.

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Attorney for Applicant(s)   Date of Signature

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Respectfully submitted,

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